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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/672,720	09/29/2003	Xianrui Huang	134199	1109

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EXAMINER

ARANA, LOUIS M

ART UNIT PAPER NUMBER

2859

DATE MAILED: 08/08/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/672,720

Applicant(s)

HUANG ET AL.

Examiner

Louis M. Arana

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 06 June 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-45 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11, 13-24 and 26-45 is/are rejected.
- 7) ☒ Claim(s) 12 and 25 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

1. This communication is responsive to your remarks filed June 6, 2005. Claims 1-45 as originally filed are currently pending in this application. Claims 1-11, 13-24 and 26-45 stand rejected. Claims 12 and 25 stand objected to as identified in the previous office action summary.

Claim Rejections - 35 USC § 103

2. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

3. Claims 1-11, 13-24 and 26-45 are rejected under 35 U.S.C. 103(a) as being unpatentable over Miyamoto et al. P.N. 4,672,346 (Miyamoto) in view of Sellers P. N. 5,431,165.

Miyamoto discloses a permanent magnet assembly. Applicant's attention is directed to Fig. 11 and corresponding description. Permanent magnets fixed to a support or yoke 3 have holes 18 on which are inserted in movable arrangement, shim rods or plugs 19. Actuators 21, in the form of screws, effect the movement of plugs 19. The magnet assembly is intended for NMR-CT, which is for generating images of a subject.

The difference between the prior art as represented by Miyamoto and the claims at issue, is that Miyamoto does not specifically describe movable plug or shim 19 as made of a permanent magnet. In fact, plug 19 is only described as a "rod-like soft magnetic material". This difference however, would have been obvious to the artisan of ordinary skill in the art at the time the invention was made. The use of permanent magnets for shimming of magnetic fields in the MRI magnet construction art, is well known. One

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example of this, are the teachings of Sellers. Sellers in an arrangement similar to Miyamoto's (see Fig.3 e.g.) teaches the use of permanent magnetic material, which may include ferro-magnetic material. See col. 2, lines 63-65. The use of such permanent magnet material including a combination with a metal backing plate in Miyamoto, would result in the instant invention as claimed.

Response to Arguments

4. Applicant's arguments filed June 6, 2005 have been fully considered but they are not persuasive. Applicant's remarks have been carefully considered. Claims 1-45 in this application stand as originally filed. Applicant argues the patentability of independent claims 1, 14, 26 and 31 over Miyamoto and Sellers based on the contention that "using a permanent magnet inside another permanent magnet as claimed, creates unique issues, and advantages, owing to field interaction, polarity and so on..."

In response, the examiner submits that none of the independent claims recite a permanent magnet moving **inside** another permanent magnet. All that the independent claims require is that the magnets in the assembly move relative to each other. It is for this reason that the examiner pointed to Fig.13 of Miyamoto in a previous office action which does not show magnets moving inside one another but clearly shows magnets moving relative to each other. Applicant's representative has apparently missed this point. The examiner wishes to point out however, that even the claims required a magnet moving inside another magnet, applicant's arguments with respect to the magnetic flux remain unpersuasive. Applicant's arguments compare Miyamoto to the

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claims at issue and completely ignore Sellers. As a matter of fact the Sellers prior art is not ever mentioned in applicant's arguments.

Applicant has not argued the purported patentability of any of the dependent claims as he deems it "improper".

Allowable Subject Matter

5. Claims 12 and 25 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

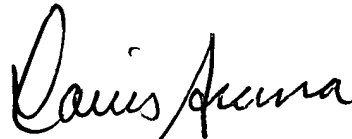
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Louis M. Arana whose telephone number is (571) 272-2236. The examiner can normally be reached on M-Thurs. Fridays Off.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Diego F. Gutierrez can be reached on (703) 308-3875. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Louis M. Arana
Primary Examiner
Art Unit 2859

lma
8/3/05